

DEPARTMENT OF THE ARMY  
U.S. ARMY DENTAL ACTIVITY  
Fort Huachuca, Arizona 85613-7040

DENTAC Pamphlet  
No. 385-2

23 September 1998

Safety  
THE DENTAC SAFETY PROGRAM

	<u>Para</u>	<u>Page</u>
HISTORY.....	1	1
PURPOSE.....	2	1
SCOPE.....	3	1
REFERENCES .....	4	1
RESPONSIBILITIES.....	5	2
FIRE PREVENTION AND CONTROL.....	6	2
ELECTRICAL SAFETY PLAN.....	7	4
MEDICAL GAS SAFETY PROGRAM .....	8	5
PATIENT AND VISITOR SAFETY.....	9	6
IONIZING RADIATION .....	10	6
PERCUTANEOUS (NEEDLE-STICK) INJURY PROCEDUES .....	11	7
MERCURY HYGIENE .....	12	10
GENERAL OCCUPATIONAL SAFETY AND HEALTH.....	13	11
DENTAL LABORATORY SAFETY.....	14	11
HAZARD COMMUNICATIONS .....	15	12
BERYLLIUM HYGIENE .....	16	12
APPENDIX A.....		13

1. HISTORY. This is a revision of an existing publication.
2. PURPOSE. The purpose of this pamphlet is to outline the responsibilities, policies, and procedures needed to effectively manage the U.S. Army Dental Activity's (USA DENTAC) safety program. The safety program includes all matters related to safety, occupational health, fire prevention, facility fire protection, environmental health, and hazardous materials. This pamphlet specifies patient and worker safety protocol. It is designed to ensure effective safety measures for DENTAC personnel in order to minimize lost man-hours.
3. SCOPE. This pamphlet applies to all civilian and military personnel assigned to USA DENTAC, Fort Huachuca, Arizona.
4. REFERENCES.
  - a. 29 CFR 1910.1030, Occupational Exposure to Bloodborne Pathogens, 6 Dec 91.

- b. AR 40-61, Medical Logistics Policies and Procedures, 25 Jan 95.
- c. AR 385-10, The Army Safety Program, 23 May 1988.
- d. AR 700-69, Storage and Handling of Compressed Gases and Liquids in Cylinders, 16 Jan 90.
- e. HSC Suppl 1 to AR 385-10, The Army Safety program, 19 Oct 89.
- f. HSC Regulation 750-1, Maintenance of Medical Equipment, 21 Feb 91.
- g. MEDDAC Regulation 385-1, MEDDAC/DENTAC Safety Program, 24 Oct 94.
- h. MEDDAC Regulation 750-1, Oxygen Purity Control Program, 18 Jan 95.
- i. DENTAC Pamphlet, 40-1, Exposure Control Plan/Infection Control Plan, 25 Sep 98.
- h. DENCOM Commanders' Guide, 1 April 1998.

## 5. RESPONSIBILITIES.

- a. The MEDDAC Safety Manager will provide information and support the DENTAC commander with his safety program.
- b. The DENTAC Commander will designate on orders a safety officer and NCO to assist in administrating the program.
- c. The Safety Officer will oversee the DENTAC safety program.
- d. The Safety NCO will implement the DENTAC safety program and attend the MEDDAC Safety Committee meetings. The DENTAC commander will approve minutes of these meetings and provide a copy to HQ, MEDCOM, MCAP.
- e. Further specific responsibilities are addressed in each section.

## 6. FIRE PREVENTION AND CONTROL PLAN. The purpose of this plan is to promote a fire conscious attitude through training and indoctrination of all personnel of the plan's provisions.

- a. Responsibilities.
  - (1) The commander will appoint the building Safety NCO as the Alternate Building Fire Marshal. Orders will be signed by the MEDDAC Fire Marshal.
  - (2) The Safety NCO will develop and coordinate fire pre-planning and fire response with the installation fire officials.

b. Duties.

(1) The Alternate Fire Marshal will perform the following duties:

(a) Assist the MEDDAC Fire Marshal in his duties.

(b) Conduct daily inspections of the building.

(c) Ensure all personnel comply with evacuation procedures and displayed floor plan sketches of evacuation routes at each fire point.

(d) Perform monthly inspections of fire extinguisher, noting the current inspection date on HSC Form 27-R, Fire Extinguisher Inspection Record. The record will be closed out annually on the date the equipment is removed for maintenance.

(e) Coordinate with the post Fire Marshal and conduct fire drills at Runion Dental Clinic semi-annually. Method of fire alarm/detection system will be a pull alarm bell. The fire will be reported by calling 911 (only with coordination of post Fire Marshal). Fire drills at Headquarters will be conducted under the auspices of the Greeley Hall Fire Marshal.

(f) Ensure that all personnel have been instructed in fire prevention, location, and use of extinguisher and fire reporting during in-processing.

(g) Ensure annual staff training in fire prevention and control. This may be delegated to personnel qualified by training/experience. Fire prevention and control will be a permanent agenda item for the Safety NCO.

(2) DENTAC staff will perform the following in the event of a fire alarm:

(a) Inform everyone in the waiting rooms and operatories they should evacuate the building by using the nearest exits and not reenter the building until told to do so by the fire marshal or OIC/NCOIC. Evacuation plans are in appendix c.

(b) Close all windows and doors.

(3) In the event a fire is observed in the immediate area:

(a) Rescue patients and personnel in immediate danger.

(b) Activate the nearest fire alarm/bell to spread the alarm and notify the post fire department by calling 911. To avoid confusion, the following format should be used: *This is (name of caller). There is a (type of fire) at (location, name of building/building number).*

(c) Attempt to confine the fire using extinguishing equipment located in the vicinity.

7. ELECTRICAL SAFETY PLAN. Purpose of this plan is to provide an electrically safe work environment through training and indoctrination of all personnel of the plan's provisions.

a. Responsibilities.

(1) The Medical Maintenance Branch is responsible for inventory, inspection, testing and maintenance of electric and/or electronic equipment used in patient care and in the military benefits property loan program authorized in AR 40-61. This responsibility includes maintenance of inspection, test, and repair records for this equipment, and ensuring compliance with all applicable requirements of JCAHO (PTSM) standards and HSC Regulation 750-1.

(2) The MEDDAC Safety Manager, in coordination with the Safety NCO, is responsible for the oversight management of the non-patient care, electrically powered line operated equipment safety program. Elements of the program will be in accordance with National Fire Protection Association (NFPA) Standard 99, and the application requirements of JCAHO (PTSM) standards.

b. Guidance. No extension cords may run under carpeting. No extension cords may be attached to each other. All multiple outlet units with circuit breakers and/or surge protectors will be attached directly into wall outlets.

8. MEDICAL GAS SAFETY PROGRAM. The purpose of this program is to provide medically safe oxygen and nitrous oxide to DENTAC patients and ensure quality oxygen is available for delivery in an emergency.

a. The Clinic Safety NCO will ensure the following:

(1) DD Form 1191 is attached on oxygen cylinders and a safety screw-on cover to protect the valve during transportation and storage are on all cylinders.

(2) All oxygen and nitrous oxide cylinders are secured to the wall with a chain whenever they are not properly installed in a delivery unit.

(3) Oil, grease, and readily combustible materials are never permitted to come in contact with oxygen cylinders, valves, regulators, gauges, or fittings.

(4) Only ADA approved analgesia machines with scavenging devices and adequate ventilation to prevent possible exposure problems are used.

(5) Nitrous oxide machines will be secured and monitored when cylinders are attached.

(6) All personnel are briefed annually on the hazards of nitrous oxide use.

b. Female DHCWs (dental officers, technicians, or Red Cross volunteers) who are, or suspect that they may be, pregnant will inform the Safety NCO immediately. These individuals must be removed from the treatment areas utilizing nitrous oxide.

c. The Biomedical Equipment Branch personnel will ensure the following:

(1) All compressed gas containers are checked upon receipt for safe physical condition, current hydrostatic test date, color-coding, markings and labels IAW AR 700-68.

(2) All oxygen cylinders are tested for quality before issuing.

(3) Tech code, Julian date, and percentage of oxygen on DD Form 1191 (Warning Tag for Medical Oxygen Equipment) are annotated and attached to cylinder.

9. PATIENT AND VISITOR SAFETY. The purpose is to provide a safe work environment for patients and visitors through training and indoctrination of all personnel of the plan's provisions.

a. Responsibilities.

(1) The DENTAC Risk Manager will evaluate and monitor, as needed, all accident reports provided by the Safety NCO.

(2) The Safety NCO will conduct monthly walk-through inspections utilizing the DENTAC Safety Checklist from the Commander's Guide to prevent unsafe conditions. The Safety NCO will also report and evaluate all accidents.

b. Guidance. All supervisors and employees have the authority and responsibility to intervene whenever conditions exist that pose an immediate threat to life or health to patients or visitors. This will be accomplished by reporting the incident on DA Form 4106 (Quality Assurance/Risk Management Document) to the DENTAC Safety NCO. The Safety NCO will forward the report to the DENTAC Risk Manager. Any employee who discovers an occurrence or incident that either did or could result in an injury will complete this form. An incident is an event that does not necessarily involve patients, but may be the basis for a complaint, financial liability and/or disciplinary action.

10. IONIZING RADIATION. The purpose is to provide a safe work environment for employees and patients through training and indoctrination of DENTAC personnel to the hazards of ionizing radiation.

a. Responsibilities.

(1) Safety NCOs are to conduct a monthly walk-through inspection utilizing the radiology checklist from the Commanders' Guide to prevent unsafe conditions.

(2) The Safety NCO will ensure the dental staff is briefed annually on the hazards of ionizing radiation by the Radiation Protection Officer (RPO) or his delegate.

(3) The RPO will ensure that x-ray equipment and film processing equipment operators provide the optimum clinical results with minimal exposure and risk.

b. Guidance.

(1) Radiographs will be taken only upon the request of a dental officer.

- (2) All personnel will wear the appropriate PPE while taking radiographs.
- (3) Masks, rubber gloves, plastic aprons, and eye protection will be worn when changing x-ray processor solutions.
- (4) An eyewash station meeting stand-alone/plumbed-alone (ANSI) standards will be conveniently located.
- (5) Signs will be posted prominently directing patients to advise clinic personnel if they are pregnant prior to exposure.
- (6) Signs will be posted identifying the x-ray rooms and alerting personnel to knock prior to entry.

11. PERCUTANEOUS (NEEDLE-STICK) INJURY PROCEDURES. This paragraph provides guidance to clinic personnel, supervisors, and OIC/NCOICs concerning actions to be taken in the event of puncture, laceration, or splash injuries involving instruments or materials contaminated with blood or other potentially infectious material (OPIM).

a. Responsibilities.

- (1) The Safety NCO will ensure the proper forms are completed and forwarded to the appropriate parties.
- (2) DENTAC Risk Manager will monitor follow-up procedures and report conclusions to the Quality Improvement Committee.
- (3) Occupational Health will maintain the employee's records and will conduct follow-up testing.
- (4) Prime Time Clinic or Outpatient physician will evaluate and treat the injured employee.

b. Guidance.

- (1) All used needles, burs, blades, endo files/ broaches, and any other sharps will be disposed of in a sharps container. These are available in each treatment area. Puncture-proof containers will be used to carry sharps to the sharps containers.
- (2) After use, needles may be recapped prior to removal. Use of any method that could result in a needle-stick must be avoided. The needle may be recapped by laying the cap so that the needle can be guided into it without holding the cap or by utilizing a cap holding device.
- (3) Report all needle-stick, punctures, lacerations or splashes to mucous membranes (i.e. eyes or mouth) to the supervisor or NCOIC immediately.

c. Procedures.

(1) Self Aid: The injured employee with an accidental parental (e.g., needle-stick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other potentially infectious body material (OPIM) will complete the self aid process immediately following the injury and prior to any other activity.

(a) If skin is broken, bleed the area by pressing on the surrounding tissue to flush the wound of any contamination.

(b) Wash the area with an approved bactericidal solution.

(c) Apply pressure dressing or bandage as needed.

(2) Injured Employee:

(a) Will report the injury immediately to the Safety NCO.

(b) Will report to the Outpatient or Prime Time Clinic within a 2-hour window for further treatment.

(c) Will report with military medical records (if available) and the NCO-completed forms.

(d) Will be responsible for obtaining the HIV tests and ensuring the results are forwarded to Occupational Health.

(3) Safety NCO will fill out the following forms:

(a) For military employees: DA Form 285, Record of Injury.

(b) For civilian employees: DA Form 285, Record of Injury; and CA-1, Federal Employee's Notice of Traumatic Injury and Claim, items 17 to 38.

(4) Source patient will accompany the injured employee to the Outpatient or Prime Time Clinic, if possible. If the source patient cannot go, their name and social security number, if known, should be forwarded to Occupational Health for the required follow-up. The source patient will be assessed clinically and epidemiologically by his/her attending physician.

(5) Outpatient or Prime Time Clinic Physician.

(a) Notifies the source patient's attending physician of the required assessment. Military personnel will be tested for HIV, Hepatitis B panel, liver enzymes, and renal panel. Civilian personnel will be given the option of submitting to the required assessment. Refusal will be documented in employee's medical record. Lab slips should be labeled Occupational Health to ensure that the results are reported to Occupational Health for enclosure in the injured employee's record. If results are positive, Occupational Health will notify the attending physician of the source patient's results.

(b) Evaluates and treats the injured employee. All treatment and follow-up will be confidential. HIV and Hepatitis B panel will be performed and results forwarded to Occupational Health. HBIG or Human Serum Globulin (ISG) and tetanus toxoid will be administered if indicated. Complete DA Form 285 and documentation in medical records.

(c) Ensures the following forms are complete and forwarded to Occupational Health: Military personnel--DA Form 285; civilian personnel--DA Form 285 and CA-1, items 17-38.

(6) Occupational Health: Will maintain the injured employee's records and will conduct the follow-up testing. Determine the need for Hepatitis vaccination or follow-up. HIV testing will be conducted at 3, 6, and 12 months from the date of injury. Will remind individuals of the follow-up dates.

\*Please refer to flow chart and free Clinicians Hotline # located in appendix A.

d. Treatment. The U.S. Department of Health and Human Services CDC recommendations from 1996 are as follows:

(1) Zidovudine (ZDV) should be considered for treatment of all exposures involving HIV-infected blood or OPIM.

(2) Lamivudine (3TC) should be added to ZDV for increased effectiveness and for use against ZDV resistant types of virus. Used in combination, ZDV and 3TC are very effective in treating HIV infection, and considerable information shows that they are safe when used for a short time.

(3) Indinavir (IDV) should be added for the highest risk exposures, such as those involving a larger volume of blood with a larger amount of HIV. IDV is a potent antiviral drug that appears to be safe when taken for a short period, although less information is available about the safety of this drug.

## 12. MERCURY HYGIENE.

### a. Responsibilities.

(1) The Safety NCO will ensure that the dental staff is briefed at least annually on the hygiene, handling, and potential hazards of mercury.

(2) Occupational Health will check use and storage areas for evidence of contamination annually.

### b. Guidance.

(1) A mercury clean-up kit will be maintained in the clinic. It will be promptly utilized if needed and Occupational Health will be contacted so they may verify the adequacy of the clean up.

(2) The following precautions will be followed when using amalgam.



- (a) Only pre-capsulated dental amalgam will be used.
- (b) Amalgam will be placed using rubber dam isolation whenever possible. It will be removed only with copious irrigation and high volume suction.
- (c) Avoid skin or mucuous membrane contact with mercury or freshly mixed amalgam. If contact does occur, wash the area thoroughly.
- (d) Store scrap amalgam in a sealable (e.g., denture bag) plastic bag or other sealable plastic container with no chemical component. The bag will need to be labeled according to HAZCOM (29CFR 1910.1200) standards. Scrap amalgam that has not been in a patient's mouth can be placed directly into this bag. All amalgam that may have had contact with body fluids should be disinfected with an intermediate level disinfectant, air dried, and placed in the storage container.

### 13. GENERAL OCCUPATIONAL SAFETY AND HEALTH.

#### a. Responsibilities. Occupational Health:

- (1) Will in-process DENTAC staff to ensure compliance with the immunization policy section of DENTAC Pam 40-1.
- (2) Will maintain immunization documentation; as a minimum ensuring rubella or rubella-titer, mumps, tetanus, diphtheria and hepatitis B vaccinations and post exposure follow-up care have been completed.
- (3) Will conduct screen hearing tests and provide noise protection as needed.

#### b. Guidance.

- (1) Employees exposed to splash, splatter or spray are required to wear appropriate personal protective equipment (PPE) and approved eye protection (goggles, full face shield or glasses with solid side shields).
- (2) Staff will wear hearing protection when working in any dangerously noisy area.

### 14. DENTAL LABORATORY SAFETY.

a. Responsibilities. Safety NCO will ensure that all laboratory safety policies are being followed.

#### b. Guidance.

- (1) The entrance to the dental laboratory will be labeled to denote a safety precaution area.

(2) Safety equipment will be available at all times and used appropriately while accomplishing hazardous tasks.

(a) Protective eyewear will be available to visitors upon entering the laboratory.

(b) Safety shields/guards will be attached to all grinding, buffing, and polishing lathes.

(c) Protective eyewear will be worn when using positive pressure compressed air (not to exceed 30 PSI) during clean-up procedures.

(d) When using materials known to liberate potentially harmful vapors (i.e., methyl methacrylate), a laboratory hood providing exhaust ventilation (away from workers breathing zone) of at least 100 cubic feet per minute per square foot of hood face opening should be used.

(e) An eyewash station meeting NASI standards must be installed for easy access to all laboratory employees. All personnel will be properly instructed in its use annually.

#### 15. HAZARD COMMUNICATIONS (HAZCOM).

##### a. Responsibilities.

(1) Safety NCO will ensure that all HAZCOM policies are being followed.

(2) Supply NCO will maintain the Material Safety Data Sheets (MSDS) binder and database.

##### b. Guidance. The HAZCOM program will include, but not limited to, the following:

(1) A complete hazardous chemicals inventory binder will be maintained by the Safety NCO. This binder will contain MSDSs for all hazardous chemicals found at Runion Dental Clinic. The MSDS binder must be available to DENTAC personnel at all times.

(2) A computer database of the required MSDSs will be maintained by the Supply NCO. Fields in the database will be manufacturer, chemical name, common name, and location of the MSDSs within the binder.

(3) HAZCOM programs for all DENTAC employees who are exposed to hazardous substances will include the following:

(a) Initial HAZCOM training by the Preventive Medicine Service of RWBAHC with documentation on DD Form 1556 (Request, Authorization, Agreement, Certificate of training and Reimbursement).

(b) Site training on unique dental hazardous chemicals will be conducted at the clinic level by the team NCO and documented on DD Form 1556.

(c) Annual HAZCOM training will be conducted by the Safety NCO or his delegate and documented individually on DD Form 1556.

(d) Whenever new chemicals or materials are introduced into the clinic the team NCO will conduct the proper training and documentation on DD Form 1556.

(e) Originals of the DD Form 1556 will be forwarded to the NCO for both civilian and military personnel. Staff members are to retrieve their DD Form 1556 upon out-processing to a new duty section.

#### 16. BERYLLIUM HYGIENE.

a. Responsibilities. Safety NCO will ensure that all safety policies are being followed in order to provide a beryllium safe environment for DHCWs and patients.

b. Guidance. Cast partial denture frames may contain up to 0.05 percent beryllium. When polishing or adjusting these frames, adequate ventilation must be maintained. In the laboratory, use the filtered evacuation system with the lathe; in the operatory, use high speed evacuation system.

The proponent agency of this publication is the Office of the Commander. Send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms to Commander, U.S. Army Dental Activity, Fort Huachuca, AZ 85613-7040

//Original Signed By//

HARLAND G. LEWIS, JR.  
Colonel, Dental Corps  
Commanding

DISTRIBUTION:  
DSBJ-CDR – 1  
DSBJ-RDC - 6

APPENDIX A

**NATIONAL TOLL FREE HOTLINE**

**FOR CLINICIANS TREATING BLOODBORNE**

**PATHOGEN EXPOSURE**

**1-888-448-4911**

